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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,898	09/14/2000	Jefferson P. Ward	10005231-1	9717
22879	7590	05/06/2004		
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER PHAM, THIERRY L	
			ART UNIT 2624	PAPER NUMBER

DATE MAILED: 05/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/661,898

Applicant(s)

WARD ET AL.

Examiner

Thierry L Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Responsive to Unsigned Declaration has been received/acknowledged and entered as paper no. 3.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al (U.S. 5731823).

Regarding claim 1, Miller discloses a method of selecting one of a plurality of print settings (printing settings options, fig. 5) for printing a document comprising:

- (1) determining at least one content characteristic (determines the characteristics of the document (i.e., type of graphics are incorporated in the image, text elements, and etc.) fig. 2, col. 3, lines 35-50 and col. 6, lines 25-62) of the document;
- (2) identifying from the plurality of print settings (the system identifies and applies the best print settings based on the characteristic of the document (i.e., type of graphics are incorporated in the image, text elements, and etc.), Abstract, col. 2, lines 3-38 and col. 7, lines 35-67 to col. 8, lines 1-67) an optimum print settings that is best suited for the content characteristics; and
- (3) utilizing the optimum print setting (i.e., if the document contains scanned image, the system will apply print setting with lower resolution to maximize print quality, col. 7, lines 65-67 to col. 8, lines 1-17) to print the document.

Regarding claim 2, Miller further discloses the method of printing of claim 1, wherein the step of determining at least one content characteristic further comprises the steps of: counting a number of pages in the document (accumulation of pages, col. 5, lines 33-42 and col. 7, lines 7-13); if the number of pages is less than or equal to a threshold, then selecting a first

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print setting (applying the best print settings for accumulated data, cols. 7-8); and if the number of pages is greater than the threshold, then selecting a second print setting (applying the best print settings for accumulated data, cols. 7-8);

Regarding claim 3, Miller further discloses the method of printing of claim 1, wherein the steps of determining at least one content characteristic further comprises the steps of: determining an amount of text data ("text data 44" in document 42, fig. 2) in the document; and selecting the optimum setting based on the amount of text data (applying the best print settings for an amount of text data, cols. 5-8).

Regarding claim 4, Miller further discloses the method of claim 1, wherein the step of determining at least one content characteristic further comprises the steps of: determining an amount of image data in the document ("image data 48" in document 42, fig. 2); and selecting the optimum print setting based on the amount of image data (applying the best print settings for image data, cols. 5-8).

Regarding claim 5, Miller further discloses the method of printing of claim 1, wherein the step of determining at least one content characteristic further comprises the steps of: comparing an amount of text data in the document and an amount of image data in the document (a document comprising both text and image data, fig. 2); and selecting the optimum print setting based on the amount of text data as compared to the amount of image data in the document (applying the best print settings for both text and image data, cols. 5-8).

Regarding claim 6, Miller further discloses the method of printing of claim 1, wherein the step of determining at least one content characteristic further comprises the steps of: determining a type of text data in the document (i.e., text color, col. 6, lines 25-52); and selecting the optimum print setting based on the type of text data (applying the best print settings for text color, cols. 5-8).

Regarding claim 7, Miller further discloses the method of printing of claim 1, wherein the step of determining at least one content of characteristic further comprises the steps of: determining a type of image data in the document (i.e., color of image data such as grayscale image, col. 3, lines 35-50 and col. 6, lines 25-52); and selecting the optimum print setting based on the type of image data (applying the best print settings for color of image data, cols. 5-8).

Regarding claim 8, Miller further discloses a method of selecting one of a plurality of print settings for printing a document in response to a print request comprising the steps of:

- (1) gathering data relating to prior print setting selections (determining the characteristics of the document to be printed, fig. 2, col. 3, lines 35-50 and col. 6, lines 25-62);
- (2) comparing the prior setting selection data to at least one characteristic of the print request (the system identifies the characteristics of the document and select the best print settings based on the characteristic of the document with respect to printer's attributes/properties, Abstract, col. 2, lines 3-38 and col. 7, lines 35-67 to col. 8, lines 1-67);
- (3) identifying an optimum print setting for the print request (the system identifies the characteristics of the document and select the best print settings based on the characteristic of the document, Abstract, col. 2, lines 3-38 and col. 7, lines 35-67 to col. 8, lines 1-67);
- (4) and utilizing the optimum print setting to print the document (i.e., if the document contains scanned image, the system will apply print setting with lower resolution to maximize print quality, col. 7, lines 65-67 to col. 8, lines 1-17).

Regarding claim 9, Miller further discloses a method of selecting one of a plurality of print settings for printing a document in response to a print request comprising the steps of:

- (1) analyzing a plurality of characteristics (i.e., text colors, color of image data, col. 3, lines 35-50 and col. 6, lines 25-50) relating to the print request;
- (2) identifying from the plurality of print settings an optimum print setting that is best suited for the plurality of characteristics (the system identifies the characteristics of the document and selects the best print settings based on the characteristic of the document, Abstract, col. 2, lines 3-38 and col. 7, lines 35-67 to col. 8, lines 1-67); and

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(3) utilizing the optimum print setting to print the document (i.e., if the document contains scanned image, the system will apply print setting with lower resolution to maximize print quality, col. 7, lines 65-67 to col. 8, lines 1-17).

Regarding claim 10, Miller further discloses the method of claim 9, wherein the step of analyzing a plurality of characteristics further comprises the step of analyzing at least: a number of pages in the document; an amount of text data in the document; an amount of image data in the document; a type of text data in the document (i.e. color of text data, col. 6, lines 25-52); a type of image data in the document; an input/output protocol; a host device type; an application being used to print the document; a job queue status; a time of day; or a type of media being printed.

Regarding claim 11, Miller further discloses the method of claim 9, wherein the step of analyzing a plurality of characteristics further comprises the steps of: gathering data relating to prior print settings selection (col. 6, lines 25-52); and analyzing the prior setting selection to data to identify the optimum print setting (selecting the best print settings based on analyzed data, cols. 6-8).

Regarding claim 12, Miller further discloses the method of claim 9, wherein the step of analyzing a plurality of characteristics further comprises the step of requesting a user to input at least one preferred print setting for at least one category of print requests (fig. 4, col. 1, lines 40-50).

Regarding claim 13, Miller further discloses the method of claim 9, further comprising the step of weighting each of the plurality of characteristics according to at least one factor (i.e. color of image data, col. 3, lines 35-50).

Regarding claim 14, Miller further discloses a method of selecting one of a plurality of print settings for printing a document comprising the steps of: requesting a user to input at least one user preferences (fig. 4, col. 1, lines 40-67); utilizing the user preferences to identify from

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the plurality of print settings an optimum print setting that is best suited for the user preference (applying the best print settings for color of image data, cols. 5-8); and utilizing the optimum print setting to print the document (applying the best print settings for color of image data, cols. 5-8)..

Regarding claim 15, Miller further discloses the method of claim 14, wherein the user preference is related to choice (fig. 4) that balances print quality and print speed.

Claims 16 and 17 correspond to claims 1 and 9 (respectively) except computer readable memory medium for storing program is claimed rather than printing system or data output apparatus or methods. All computers have some type of computer readable memory medium (personal computer, col. 3, line 28) for storing computer programs, hence claims 16 and 17 would be rejected using the same rationale as in claims 1 and (respectively).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) U.S. 6149323 to Shima, teaches a method for programming print settings based upon selected documents.

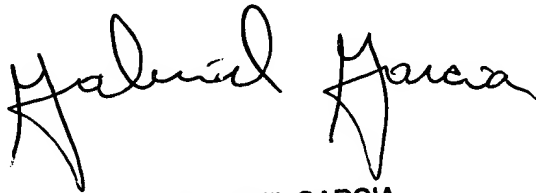
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham



GABRIEL GARCIA
PRIMARY EXAMINER